

## ABSTRACT

A test structure supports simultaneous characterization of a two port optical component. The test structure includes an input port for receiving an input signal from an optical source, two test ports for connecting the test structure to a component under test, separate optical paths for supplying reflected and transmitted optical response signals from the component under test to separate receivers, and optical components for combining a first portion of the input signal with the reflected optical response signal before the first portion of the input signal and the reflected optical response signal are detected by a first receiver and for combining a second portion of the input signal with the optical response signal before the second signal and the optical response signal are detected by a second receiver. The optical component of the test structure may be connected by optical fibers or integrated into a single substrate.